REMARKS

Claims 1-64 are now pending in the application with claims 3-6, 8-18, 21-26, 29-32, 34-44, and 47-64 having been previously withdrawn. Claims 1, 7, 19, 20, 27, 33, 45, and 46 are currently amended. Claims 2 and 28 are cancelled. No claims are newly added by this amendment. Basis for the amendments can be found throughout the specification, claims and drawings as originally filed. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 101

Claims 1, 2, 7, 19, and 20 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. This rejection is respectfully traversed.

Applicants have amended the method claims to recite that at least one of the STAs performs the recited method steps. Thus, the methods are now recited as being performed by a particular machine in accordance with *In re Bilski*.

REJECTION UNDER 35 U.S.C. § 112

Claims 1, 2, 7, 19, 20, 27, 28, 33, 45, and 46 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

The objected to language "such as" has been replaced with "that includes." It is respectfully submitted that this corrects the indefiniteness perceived by the Examiner.

REJECTION UNDER 35 U.S.C. § 103

Claims stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Terry (U.S. Pat. No. 7,046,651; "Terry") in view of Hu (U.S. Pub. No. 2004/0213184; "Hu"). This rejection is respectfully traversed.

Claims 2 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Terry in view of Kadous (U.S. Pub. No. 2005/0008092; "Kadous") and Woo (U.S. Pat. No. 6,735,223; "Woo"). This rejection is respectfully traversed.

Claims 7 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Terry in view of Hu as applied to claims 1 and 27 above, and further in view of Kadous. This rejection is respectfully traversed.

With respect to claims 1 and 27, the Examiner relies upon Terry as teaching the basic generation of data packets as used in 802.11 protocol communication. The Examiner recognizes that Terry does not disclose applicants' degree of control whereby the packets each have the same packet time length. The Examiner relies upon Hu as teaching this feature.

Applicants submit, however, that their invention is more than a mere combination of Terry and Hu. In particular, as illustrated in applicants' Figure 1, the applicants' method and apparatus makes an assessment of the respective transmission rates of the plural data transmission paths (i.e., plural radio channels and/or plural MIMO data paths). Based on this assessment, the data part extracted from a data field of one data

frame is fragmented by applying the size ratio corresponding to the transmission rates. See Figure 1, steps S008, S009 and S010. See also, specification at page 20, lines 2-5.

Using this method, the applicants are able to achieve an efficient packaging of information into packets that can be simultaneously sent over the plural data transmission paths with minimal interference from acknowledgement transmissions from other STAs.

In order to more fully distinguish applicants' invention in this regard, claims 1 and 27 have been amended to recite the step of assessing the respective transmission rates of the plurality of data transmission paths to thereby determine a size ratio. The claims have been further amended to recite that the fragmenting operation is performed by applying said size ratio. Applicants submit that the references do not teach or suggest this feature. In particular, Applicants respectfully submit that the cited references cannot be relied upon to teach:

> assessing the respective transmission rates of said plurality of data transmission paths to define a size ratio corresponding to said transmission rates; (emphasis added)

or

> fragmenting a data part extracted from a data field of said one data frame to be transmitted by applying said size ratio, to generate X data blocks that have data fields equal to or smaller than Dmax and that have a same packet time length. (emphasis added)

First, as discussed above and in the Office Action, Terry does not teach generating X data blocks that have a same packet time length. See *Office Action*, July 21, 2009, page 4. Applicants respectfully submit that none of Kadous, Woo or Hu may be relied upon to teach the above stated limitations.

Kadous involves techniques for processing received streams in a MIMO system with multipath channels. Kadous states in [0029] that the "data rate, coding and modulation for each data stream may be determined by controls provided by a controller 130." Kadous states in [0114] that if channel state information is not available at the transmitter, then the transmitter is not able to perform adaptive rate control. In such a case, the same data rate may be used for all data paths transmitted. Kadous, however, does not state what rate this "same data rate" should be or how that rate is determined. Furthermore, it does not appear that Kadous teaches assessing the transmission rates to define a size ratio corresponding to the transmission rates. In fact, in view of the foregoing, it appears that Kadous teaches the setting of a "same data rate" when channel information is not available. See Paragraph [0114]. Moreover, it appears that Kadous teaches manipulating the rate of transmission on the channels, instead of setting packet sizes having the same time length. Thus, Applicants submit that Kadous does not teach the above stated limitations.

Similarly, Woo cannot be relied upon to teach the limitations at issue. Woo is directed to a packetizing system for a high speed serial bus. Col. 1, lines 10-11. As a threshold matter, Woo does not relate to multiple channel transmissions or MIMO. This is significant because as Woo does not contemplate multiple channels, Woo cannot be read in any way so as to suggest the teaching of "assessing the respective transmission rates of said plurality of data transmission paths." Let alone doing so "to define a size ratio corresponding to said transmission rates" as recited in claim 1. It therefore follows that Woo cannot be read to teach or otherwise suggest "fragmenting a data part extracted from a data field of said one data frame to be transmitted by applying said

size ratio, to generate X data blocks...that have a same packet time length," as Woo does not contemplate either using a size ratio, or generating packets that have a same packet length (emphasis added).

Finally, Applicants respectfully submit that Hu cannot be read to cure the difficiencies of Terry, Kadous, and Woo. Hu relates generally to a method for performing Hybrid ARQ in transmission systems using MIMO antenna systems. Paragraph [0008]. The Examiner points to paragraph [0016] to teach "fragments that have the same packet time length." See *Office Action*, July 21, 2009, page 4. Hu, however, teaches that the sub-blocks are of equal size. While Hu does teach that the number of sub-blocks in a particular group to be transmitted is determined from the current channel conditions, Hu teaches that the number of sub-blocks to be transmitted by an antenna is determined using Equation 1. Equation 1 is dependent on a number of Walsh codes, a coding rate of the modulator associated with the antenna, a spreading factor, a number of bits per sub-block, a transmission time interval and a chip rate. See Claim 8. It is submitted that none of these is a size ratio that corresponds to the transmission rates of the transmission paths. Furthermore, Hu is wholly silent to determining a size ratio corresponding to said transmission rates. As such, Hu does not teach or otherwise suggest using a size ratio to generate X data blocks having the same packet time length. Thus, Applicants submit that feature cannot be relied upon to cure the difficiencies of Terry, Kadous, and Woo.

In view of the foregoing, Applicants respectfully submit that claim 1 patentably defines over the cited references. Furthermore, Applicants submit that claim 27 recites subject matter that is substantially similar in scope to claim 1. For the same reasons,

Applicants respectfully submit that claim 27 patentably defines over the cited references. Finally, as claims 7, 19, and 20 depend from claim 1, and claims 33, 45, and 46 depend from claim 27, for at least the reasons presented above, claims 7, 19, 20, 33, 45 and 46 patentably define over the cited reasons. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of these claims.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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